

9/17/03

In the United States Patent and Trademark Office

Appn. Number: 10/007,489

Appn. Filed: 12/05/2001

Applicant: Elizabeth Gay Frayne

Title: "Microbial Production of Nuclease Resistant DNA, RNA, and Oligo Mixtures"

Examiner: Devesh Khare, PhD, JD

Art Unit:1623

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TECH CENTER 1600/2900

Amendment A

Assistant Commissioner for Patents
Washington, District of Columbia 20231

Sir:

In response to the Office Action mailed 9/4/03 please amend the above application as indicated below. Claims 1-5 have been elected for the parent application and divisional applications will be sought on claims 6-7 and 8-13.

Title: Change to "Microbial Production of Phosphorothioate Substituted DNA, RNA, and Oligo Mixtures"

Specification: Please refer to the 15 page substitute specification enclosed. The amendments were too numerous to simply correct the original application. The substitute specification contains no new matter.

Substantial portions were deleted because more than one invention was described. All references to a method for stabilizing mRNA and enhancing protein synthesis were omitted. In addition all references to a method for mutagenesis were omitted.

Example I remains the same. Example II has been shortened and serves to demonstrate the ability of thio-phosphate to be incorporated into RNA. The original Example III has been deleted and replaced with a section from the original Example II. Example IV has been deleted.

Figures: Figures 1 and 2 are unchanged. The original figure 3 has been replaced with a new figure 3. This figure does not constitute new matter

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as it was described in the original patent application but because of space limitations was not included. It is now needed because the patent is being divided. Figure 4 (the table) has been canceled as it goes with the non-elected claims. Please see Figures attached.

Sequence Listing: The sequence listing is now omitted as it is not required for the parent application or elected claims.

Claims: See Claims Amendment. Claims 1-5 are elected and of these claim 4 was amended to fit the scope of the patent now submitted.

Information Disclosure: The following items from page three of the information disclosure can be deleted:

1)Matzura and Eckstein (1968) European J. Biochem 3:448-452; 2) Burgers and Eckstein (1979) J. Biol. Chem. 254:6889-6893; 3) Goodman et al (1993) Crit. Rev. Biochem. Biochem. Mol. Biol. 28:83-126.

Respectfully submitted,



Elizabeth Gay Frayne, PhD
2027 Galvin Ln. #1
Diamond Bar, CA 91765
(909)860-7415